

Amendments to the Drawings:

Replacement sheets for FIGS. 1-20 are enclosed which formalize the drawings that were submitted with the application. No other changes have been made. Formal drawings are submitted herewith under separate Letter to the Official Draftsperson. Approval by the Examiner is respectfully requested.

REMARKS

Formal drawings are submitted herewith under separate Letter to the Official Draftsperson. No other changes have been made. Approval by the Examiner is respectfully requested.

Claims 1-9, 11, and 13 are cancelled. Claims 10, 14, and 15 are amended. Claims 19-22 are new. No new matter has been introduced as a result of these amendments. Claims 10, 12, and 14-22 are currently pending in the application.

The Examiner rejected claims 1-4, 9, 11, and 13 under 35 U.S.C. § 102(b) as being anticipated by Hawkins (USPN 5,276,520). The Examiner rejected claims 5 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Harton (USPN 2003/0107666). The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Kawakami (USPN 2004/0263678). The Examiner rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Juen (USPN 5,341,220). These rejections are now moot since claims 1-9, 11, and 13 are cancelled.

The Examiner rejected claims 10, 12, and 18 under 35 U.S.C. § 102(b) as being anticipated by Hawkins (USPN 5,276,520). The Examiner rejected claims 14 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Harton (USPN 2003/0107666). The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Kawakami (USPN 2004/0263678). The Examiner rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Hawkins in view of Juen (USPN 5,341,220). These rejections are traversed and applicant requests reconsideration of the application.

102(b) Rejection

Hawkins discloses an image sensor having a lateral overflow drain and a structure for controlling the charge transfer to the drain during charge

collection. Charge is collected in a channel 32 under the storage region (see figure 2a). A lateral overflow drain 29 carries away overflow charge during anitblooming operations. An electrode 26c controls the charge transfer from the storage areas under electrode 26a to a lateral overflow drain 29. During an integration time, the amount of charge that can be stored is varied by applying an overflow gate voltage to electrode 26c to vary the barrier potential that provides a barrier to charge being delivered to the lateral overflow drain 29 (see col. 3, lines 15-30 and lines 55-66; and col. 6, lines 17-33).

In order for a reference to anticipate an invention, each and every element of the claimed invention must be found in a single reference. "The identical invention must be shown in as complete detail as is contained in the ... claim." MPEP § 2131. Applicant respectfully submits Hawkins does not anticipate Applicant's independent claim 10 because Hawkins does not teach each and every element in the claim.

Independent claim 10, as amended, recites "means for multiplying each pixel by a constant value determined for that pixel to compensate for variations of the charge capacity such that all pixel photo response curves are substantially equal." Nothing found in Hawkins teaches this aspect of the claimed invention. Hawkins does not describe correcting fixed pattern noise by multiplying each pixel by a constant value. Hawkins varies the voltage applied to the substrate to minimize the effects of fixed pattern noise (col 6, line 30). Therefore, for at least the following reason, Hawkins does not anticipate Applicant's independent claim 10.

"Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim." 37 CFR § 1.75. Claims 12 and 18 depend from and includes all of the limitations of independent claim 10. For at least the reasons discussed above, Hawkins does not anticipate independent claim 10. Accordingly, dependent claims 12 and 18 are also not anticipated by Hawkins.

103(a) Rejection

The Manual of Patent Examining Procedure states the following in Section 2143:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

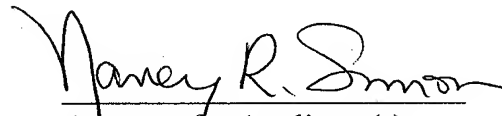
Applicant submits the combinations of Hawkins and Harton, Hawkins and Kawakami, and Hawkins and Juen do not render Applicant's claims 14-17 obvious because the combinations do not meet the three basic criteria. The arguments below, however, will focus on the third criterion.

Independent claim 10, as amended, recites "means for multiplying each pixel by a constant value determined for that pixel to compensate for variations of the charge capacity such that all pixel photo response curves are substantially equal." Hawkins does not disclose or suggest multiplying each pixel by a constant value. And nothing found in Harton, Kawakami, and Juen teaches or suggests this aspect of the claimed invention. Therefore, for at least the following reason, the combinations of Hawkins and Harton, Hawkins and Kawakami, and Hawkins and Juen do not render Applicant's independent claim 10 obvious because the combinations do not teach or suggest all of the claim limitations.

Claims 14-17 depend from independent claim 10. "If an independent claim is not rendered obvious by prior art, then any claim depending from the independent claim is not obvious." In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) (see also M.P.E.P. § 2143.03). Since the combinations of Hawkins and Harton, Hawkins and Kawakami, and Hawkins and Juen do not render independent claim 10 obvious, dependent claims 14-17 are also not obvious in view of Hawkins and Harton, Hawkins and Kawakami, and Hawkins and Juen.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,

A handwritten signature in cursive script, reading "Nancy R. Simon". The signature is written in dark ink and is positioned above the printed name and title.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.